

## WHAT IS CLAIMED IS:

1. A method for treating a disease condition in a mammal, comprising:  
administering at least one vaccination of dendritic cells ("DC") to said mammal; and  
administering a regimen of chemotherapy to said mammal.
2. The method of claim 1, wherein said DC are primed *ex vivo*.
3. The method of claim 1, wherein said DC are autologous tumor antigen-presented DC.
4. The method of claim 1, wherein said DC are unprimed.
5. The method of claim 1, wherein administering said at least one vaccination further comprises administering at least three vaccinations of DC.
6. The method of claim 1, wherein each of said at least one vaccination of DC comprises from about  $10^5$  to about  $10^7$  DC.
7. The method of claim 1, wherein each of said at least one vaccination of DC comprises about  $10 \times 10^6$  to about  $40 \times 10^6$  DC.
8. The method of claim 1, wherein said administering of said at least one vaccination of DC occurs prior to administering said regimen of chemotherapy to said mammal.
9. The method of claim 1, wherein said regimen of chemotherapy includes the administration of at least one chemotherapeutic agent selected from the group consisting of temozolomide, procarbazine, carboplatin, vincristine, BCNU, CCNU, thalidomide, irinotecan, isotretinoin, imatinib, etoposide, and combinations thereof.
10. The method of claim 1, wherein said disease condition is a cancer of the central nervous system.
11. The method of claim 1, wherein said disease condition is glioblastoma multiforme.

12. A method of increasing chemosensitivity of a mammal, comprising:  
providing at least one vaccination of dendritic cells ("DC"); and  
administering said at least one vaccination of DC to said mammal.
13. The method of claim 12, wherein said DC are primed *ex vivo*.
14. The method of claim 12, wherein said DC are autologous tumor antigen-presented DC.
15. The method of claim 12, wherein said DC are unprimed.
16. The method of claim 12, wherein administering said at least one vaccination further comprises administering at least three vaccinations of DC.
17. The method of claim 12, wherein each of said at least one vaccination of DC comprises from about  $10^5$  to about  $10^7$  DC.
18. The method of claim 12, wherein each of said at least one vaccination of DC comprises about  $10 \times 10^6$  to about  $40 \times 10^6$  DC.
19. The method of claim 12, whereby chemosensitivity of said mammal is increased with respect to chemotherapeutic treatment of a cancer of the central nervous system.
20. The method of claim 12, whereby chemosensitivity of said mammal is increased with respect to chemotherapeutic treatment of glioblastoma multiforme.
21. A kit for use in the treatment of a disease condition, comprising:  
a quantity of dendritic cells ("DC");  
a quantity of at least one chemotherapeutic agent; and  
instructions for use of said quantity of DC and said quantity of said at least one chemotherapeutic agent in the treatment of said disease condition.
22. The kit of claim 21, wherein said disease condition is a cancer of the central nervous system.

23. The kit of claim 21, wherein said disease condition is glioblastoma multiforme.
24. The kit of claim 21, further including at least one component for use in priming a quantity of DC *ex vivo*.